	Application No.	**Applicant(s)**
Notice of Allowability	10/661,772	HOLLANDER ET AL.
	Examiner	**Art Unit**	
	PHILIP WANG	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *response filed on 10/92009*.

2. ☒ The allowed claim(s) is/are *1-23*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

        a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

            1. ☐ Certified copies of the priority documents have been received.

            2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

            3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

     * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
        Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO/SB/08),
    Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit
    of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413),
    Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☒ Other *PTO-413B*.

/Philip R. Wang/ 12/19/2009	
Patent Examiner	

DETAILED ACTION

1.   This office action is in response to amendment filed on 10/9/2009.

2.   Claims 1-23 are allowed.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in communication with Jun Y. Lee (Reg. No. 40,262) on December 16, 2009 to obviate any potential issues and to put the claims in condition for allowance.

3.   The application has been amended as follows:

Claim 1. (Currently amended) A method stored on a computer readable medium including computer executable instructions for automatically generating at least one test program from a set of scenarios for testing a simulation model of a device under test (DUT) in a test environment during a test verification process, the method comprising:

providing a plurality of scenarios, each scenario containing at least one operation and at least one constraint indicative of <u>which</u> ~~compatibility with at least one~~ other scenario<u>s may be compatible therewith for the test program</u>;

selectively defining a set of scenarios from said plurality of scenarios

according to said constraints thereof by resolving conflicts among said constraints, said

set of scenarios excluding conflicting scenarios; and

automatically generating the test program by combining said set of

scenarios to provide at least one operation as input for driving simulated operation of the

DUT.

-end of currently amended claims-

4.   The following is an examiner's statement of reasons for allowance:

The cited prior art taken alone or in combination fail to teach the limitation "providing a plurality of

scenarios, each scenario containing at least one operation and at least one constraint

indicative of which other scenarios may be compatible therewith for the test program;

selectively defining a set of scenarios from said plurality of scenarios

according to said constraints thereof by resolving conflicts among said constraints, said

set of scenarios excluding conflicting scenarios; and

automatically generating the test program by combining said set of

scenarios to provide at least one operation as input for driving simulated operation of the

DUT." as recited in independent claim 1.

The instant application is related to constraint-driven test generation for a simulated operation of a DUT (Device Under Test). Based on the examiner's search, constraint-driven test generation for simulated DUT can be categorized into internal constraints, external constraints and randomly generated constraints. Internal constrains is based on the internal model of the simulated DUT and specifying constraints related to components of the internal model of the DUT. External constraints are based rules that apply to external input patterns to be simulated. Random generated test is based on a set of rules that can be applied to the test generation. In either category, whether a scenario is in conflict with another scenario is not directly specified in the definition of the scenario. A conflict associated with a scenario is not known until constraints are applied. The instant application directly specifies which scenarios are in conflict with a particular scenario and then resolve the conflicts when multiple scenarios are considered by excluding conflicting ones.

The closest cited prior arts; USPGN 2002/0040457 by Noy teaches a method of generating tests in simulation environment based on constraints and appears to not disclose the above limitation as well.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Wang whose telephone number is 571-272-5934. The examiner can normally be reached on Mon - Fri 8 - 44:00PM. Any inquiry of general nature or relating to the status of this application should be directed to the TC2100 Group receptionist: 571-272-2100.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Philip R. Wang/   12/19/2009

Patent Examiner